1. **Problem Statement:** Codifying Corporate Knowledge

Graduate students and faculty in the Information and Computer Science (ICS) and Communication and Information Science (CIS) departments have a multi-faceted problem of identifying, capturing, and sharing information relevant to student success. There are official documents and guidance (such as financial aid requirements, class registration, graduation requirements, etc) distributed over many web portals that are used by ICS/CIS faculty and students for academic requirements. However, the existence, location, and situational use guidelines of such resources is poorly defined, if at all. One very specific, and important, problem faced by both the ICS and CIS departments is the coherent tracking of graduate student information necessary for monitoring progress and providing feedback. It is a challenge just to keep track of which students are in the programs; monitoring program timelines, committee membership, and academic progress is a real challenge only partially supported with a number of official and ad hoc IT systems that are typically not integrated.

Beyond the official administrative subject matter is an ephemeral pool of information that is just as important to academic success, such as research interests of faculty and students, the social nuances of committee selection, and essential research tools (Zotero, EndNote, SPSS, NuDist, etc). Such “corporate knowledge” is critical, and yet often inappropriate for a departmental web site, and is passed along to new
students and faculty via their academic social network. However, one does not simply gain access to the loosely coupled ICS/CIS network knowledge bank just by being faculty or student, one must interact with other members to build sharing relationships. Such interaction should not be taken for granted. For example, most of the graduate students interviewed for this project stated they regularly communicate only with other students in their year group and only know the faculty from which they have taken classes. They often had to re-learn painful lessons as a group that others before them had already encountered and conquered. Rarely did these students document and share their issues and solutions, mainly because no one asked and they had no central repository to contribute towards.

Graduate school at UH Manoa is more than academics. With the large population of international and non-Hawaii resident students and faculty in the ICS and CIS programs, just getting to Oahu is a big challenge. While UH Admissions does provide checklists for incoming students and faculty to assist in their transition, those that have already made the move have invaluable, often undocumented, information that could help newcomers more quickly adjust. Whether one needs to know about shipping a car to Oahu, finding a place to live near campus, or finding a good school for young children, newcomers face the task of identifying which questions to ask and then deciphering Google’s results.

In summary, students and faculty of the ICS and CIS departments lack a mechanism to build and share the types of information that are critical to the academic and social success of current and future members.
2. The Solution: ICIS

To address the myriad of problems described above, the Interactive Collaboration Information System (ICIS) is presented in this paper. ICIS is an interactive information portal that supports a diverse stakeholder audience with three main functionalities: Academic Profile Management, Resource Collation, and Contextual Collaboration.

The foundation of ICIS is an accurate collection of academic profiles. Academic profiles contain all of the relevant information for an ICS/CIS student or faculty to include: name, address, phone number, email address, personal web site, other online presence information (facebook, LinkedIn, MySpace, Skype, etc), start date for timeline purposes, program-related courses taken, graduate advisor, graduate committee members, program academic status (exams taken, exams still required, ABD, etc), previous research and publications, research areas of interest, personal interests (optional) and faculty-specific items such as current and previous students mentored and ongoing research opportunities. The academic profile database is managed by the respective department secretary or chair; students and faculty can submit changes to their profile through ICIS, but the changes have to be accepted by the secretary/chair before becoming official. All of the fields of the academic profile are searchable, but access to sensitive personal information is restricted by ICIS login profile for privacy. The department chair is responsible for establishing the ICIS privacy policy.

The resource collection of ICIS is a contextually categorized collection of relevant documents and web links that are contributed by the ICIS user community and
moderated by the department secretary and chair. Initial categories include: Program-specific resources (official web site, list of journals by focus area, committee requirements, exam preparation, course offerings, TA/RA/GA availability, etc), UH Student Administration (financial aid, graduate division guidelines, STAR, MyUH, Banner, eCafe, Laulima, ITS Department, etc), Research Tools (Zotero, EndNote, UH Library, Google Scholar, OpenOffice, SPSS, SAS, NuDist, etc), International Students (UH guidelines, VISA requirements, Passport agencies, local ethnic associations, etc), Moving to Hawaii (finding a place to live on and off campus, shipping household goods/car, maps, etc), Living in Hawaii (local culture, places to shop, local banking, mobile phones, Internet service, etc).

Beyond the academic profiles and list of resources, the collaborative nature of ICIS is the motive force for participation. ICIS users will have the ability to update resources to keep them fresh and relevant. Preformatted categories, based upon ICIS user feedback, will quickly show lists of current students and faculty by year, topic, and status, helping drive ICIS user interaction. Robust ad hoc search capabilities in ICIS allow users to find people, resources, and activities that meet their current needs and interests. ICIS contains several standard information broadcast mechanisms, such as a calendar and list of upcoming events. Additionally, there is Wiki functionality that allows ICIS users to post questions, answers, and topics of general interest. Information from profiles allows ICIS users to contact other students and faculty via various platforms for both professional and social purposes, enriching the scholarly community of the participants. Additionally, ICIS participants can add or comment on resource listings,
creating an associated and visible wiki entry, which will enhance the information available about particular resources.

3. ICIS Stakeholders

ICIS’s stakeholders are more diverse than just students and faculty. Extensive interviews with perspective users identified three basic categories of stakeholders: faculty, graduate program administrators, and students. Faculty consists of professors that teach courses in the respective program, provide possible research opportunities, and may serve as dissertation/project chairs or on graduate committees. Program administrators consists primarily of the department secretary and the graduate/department chair, the people primarily responsible for tracking and managing the academic status of the graduate students in the program. The students category is the most diverse. We found that there are five time-dependent status categories of students with respect to ICIS; depending on a students’ status, different aspects and functionality of ICIS would become more important than others. The five student status categories are: Prospective (has not yet applied), Incoming (accepted but has not yet started), Exam/Course Phase (usually within first 1-3 years, still focused on taking courses and area exams), Dissertation/Project Phase (past exams, focused on proposal/project or dissertation), and Graduated (alumni). Appendix A provides personas for each of the stakeholder groups, with the exception of Graduated Students, which will be specifically addressed in a future version of ICIS. The personas provide a fictional archetypical user’s background, goals, expected uses, frustrations, relevant scenarios, and ICIS-contextual narrative.
4. ICIS Scenarios

Appendix B provides eight scenario data sheets for ICIS. Scenarios 1.0, 1.1, 2.0, and 2.1 are all centered about the same general task of “Preparing for the bi-annual CIS student progress review.” However, the scenarios are presented from the perspective of two different stakeholders (CIS department secretary and the CIS department chair) in both the pre-ICIS and post-ICIS configuration. We feel that this scenario configuration is very powerful. They show first how ICIS is specifically applied to an important, recurring task (with many implied constantly recurring tasks such as updating profile information which will occur year round) in contrast to a world without ICIS. They also show the different perspectives of these two stakeholders about the same task and functionality, but with a different goal set driving the interaction.

5. Design Prototype Description

Appendix C provides screen mockups of ICIS. The screen mockups represent all of the major sections of ICIS, although not all specific features and menu options are populated. Following is a general description of the functionality of each of the mockup screen captures.

**Home:** The ICIS Home Tab is the default screen when a user navigates to the ICIS URL. The home tab sets the navigation and content foundation for ICIS. Without logging in, users are provided a quick snapshot of the current calendar (with details available a click away) and titles linked to the details of the latest program news, wiki entries, and resource updates. Upon login, a user’s profile picture and basic information (name, status in program, contact information) becomes anchored on the left side of the ICIS screen along with the ever-present Quick Search box.
Search: The Search tab has a typical ICIS screen layout. Search query results are shown in a categorical list with expandable panes. A summary view of the search result is shown in the far right window. Depending on the type of resource, a new browser window/tab may open (in the case of a web site URL), a native program may open (for a MS Powerpoint file), or a new ICIS tab may be created (in the case of a user profile or ICIS report).

Resources: The Resources tab combines the flexibility of the search tab (for ad hoc queries) with the benefit of ICIS community-refereed categorical structure. Additionally, users are able to add wiki comments for specific resources from this tab while maintaining visibility of the resource category structure. This wiki capability provides a situational context far more valuable than a static list.

Calendar: ICIS uses the Google Calendar with MyDoodle (for meeting coordination) plug-ins.

News/Events: ICIS uses a standard latest-first blog format for posting recent news and upcoming events.

Wiki: The ICIS Wiki tab uses a standard wiki design format. Seed wiki threads were added by the Department Secretary, based upon recent student inquiries, with new threads added by ICIS community members through time.

People: The People tab is a simple, yet powerful, component of ICIS. It provides a simple search capability (which is available throughout ICIS), but the real strength lies in the pre-defined categories, such as All Current Students, All ICS/CIS Faculty, ABD students, Exam-Phase Students, Students by Focus/Research Area, Committee Membership, etc. These categories use the Academic Profile Database to
automatically populate the people listing and allows a view of related profiles (limited by ICIS login permissions for sensitive privacy information) in order to enhance community collaboration.

**Profile:** The Profile dynamic tab is the gateway to the information available in the Academic Profile Database for personal and community use. More than one Profile tab may be open at any one time, but all profile tabs are closed when a user exits ICIS.

**Reports:** The Reports dynamic tab is reserved for faculty members that serve an administrative role (such as a member of the CIS Executive Committee, Department Secretary or Chair, dissertation advisor, or serving on one or more dissertation committees). There are several pre-defined reports based upon a user's role and ICIS also allows ad hoc report creation as well as the ability to save a report query.

6. **Design Rationale**

The ICIS stakeholders that were interviewed were all advanced computer users with many years of web experience. Future users are expected to have the same experience level. The stakeholders were not shy in presenting their expectations for the ICIS interface. Specifically, they wanted a clean, minimalist approach towards information display. Across the user categories, there was agreement that screen space should be designed to show relevant information in a clear and concise manner, avoiding clutter and unnecessary features that could distract from their purpose of using ICIS. The preference for a simple, functional interface lead us to emphasize Tidwell's "satisficing" user pattern (p. 11) above all else throughout the design process and resulted in a modified Google Wave-like interface which combines several of the design patterns described by Tidwell.
A content analysis of the design interview transcripts showed that ICIS users expect to be able to access the “big” seven functional categories at any time during their use, without losing any work or their navigation location in a different functional category. In order to meet this requirement, ICIS uses a modified two-panel selector pattern (Tidwell p. 31) with global navigation to organize the overall page. The narrow left-hand panel remains a relatively static anchor throughout the interface, it includes a snapshot of the profile of the logged-in user and a quick search window, while the right panel contains the main interaction area. The main interaction area, consisting of about \( \frac{3}{4} \) of the width of the application area, is organized as a card-stack with tabs providing global navigation (Tidwell p. 109.) The tabs are organized by a list of tools, each one displaying in simple, concise language one of the seven main functional categories: Home, Search, People, Calendar, News/Events, Wiki, and Resources. This design allows a user to easily navigate between different sections of functionality and to intuitively grasp that doing so will not disturb what is being displayed or manipulated in the other tabs. See page C-1 for an example of the tabbed structure.

Two additional important components of ICIS are the Profile page and the Reports page (for faculty and program administrators). While these are incredibly important functions of ICIS, they are specialized components, limited to authorized users, and their use is not anticipated to be as common place as the other functions. Therefore, these two tools are not considered part of the main functional areas requiring static tabs, they are instead implemented as “extras on demand” (Tidwell p. 45) which can be launched from buttons which only appear in the left-hand panel for logged-in users. Profiles and reports that are launched will create temporary tabs that can be
closed without affecting other permanent ICIS tabs. These temporary tabs maintain overall ICIS navigation consistency while limiting the total number of static tabs to just those functional areas deemed most important to the majority of users.

Another dominant user requirement was the ability to portray various levels of information detail from any ICIS tab on one screen before committing to launching another browser window/tab for an external resource. This requirement led to the use a combination of Tidwell's cascading lists (p. 195) and movable panels (p. 114) patterns within each tab/card. An example of the various levels of abstraction is shown in the Resource screen in Appendix C. The center floating frame shows the main search window panel at the top, the administrator-only resource editing panel below that, and a high-level tabulation of the search results, by category, in the bottom panel. In the top panel of the right-hand frame, a lower-level view of the search result is presented, while any ICIS Wiki entries related to the search item(s) appear in the lower panel. In this example, where the search result is a website, the actual site is displayed within the frame. If the user wants to interact with the site, they can either use it directly within the ICIS frame or can click on the “Open in new window” button (not shown in the mockup) and the website will be loaded into a new window of the user's web browser.

It is anticipated that most users will not need or desire to use all of the available functionality all of the time throughout the ICIS interface. To maintain our satisficing focus, keeping the interface uncluttered and allowing the use of users' spatial memory strengths (Tidwell p. 15) were uppermost in our design rationale. To that end, all internal panels and frames are scrollable, movable, resizable and closable allowing the users to rearrange the environment to suit their needs, while the overall layout of the
system remains stable with the visual framework (Tidwell p. 100) of the site maintained throughout in the fixed header, tab locations, login/logout area and the static left-hand frame.

7. Evaluation Mechanisms

The goal of ICIS is not to create new technology that pushes the web ever closer to Tim Berners-Lee’s vision of greater freedom and social growth. ICIS’s modest vision is to bring together current technologies to fill an information and collaboration void that currently exists in the ICS and CIS departments (and possibly many others). The reality is that ICIS provides a capability that does not exist right now, so capturing performance metrics as one would when comparing two different systems that address the same tasks and goals is not appropriate. The first evaluation mechanism is simply this: Does ICIS allow the successful completion of the scenarios included in this paper?

It is fully expected that ICIS will be received well because there is a definite need for such a system. It would be simple, and probably acceptable to most stakeholders, to claim success based on provided functionality and content without considering ICIS’s overall usability. However, ICIS’s developers focused on creating a system that not only meets the functional needs of the stakeholders, but adheres to current best practices of usability. In order to evaluate ICIS’s usability early in the system development, heuristic evaluation of ICIS will be conducted by several experts in the field of Human Computer Interaction (HCI). Namely, several ICS and CIS faculty and graduate students that specialize in HCI will conduct a heuristic evaluation using the below checklist that is freely available on the Internet from Information & Design, a usability and user experience company based in Melbourne, Australia. This “HE short
form provides thirty-six different usability heuristics contained in eight different general topics in this format (http://www.infodesign.com.au/usabilityresources):

1. Navigation
   - There is a clear indication of the current location
   - There is a clearly-identified link to the Home page
   - All major parts of the site are accessible from the Home page
   - If necessary, a site map is available
   - Site structure is simple, with no unnecessary levels
   - If necessary, an easy-to-use Search function is available

2. Functionality
   - All functionality is clearly labeled
   - All necessary functionality is available without leaving site
   - No unnecessary plug-ins are used

3. Control
   - The user can cancel all operations
   - There is a clear exit point on every page
   - Page size is less than 50Kb/page
   - All graphic links are also available as text links
   - The site supports the user's workflow
   - All appropriate browsers are supported

4. Language
   - The language used is simple
   - Jargon is avoided

5. Feedback
   - It is always clear what is happening on the site
   - Users can receive email feedback if necessary
   - All feedback is prompt
   - Users are informed if a plug-in or browser version is required
   - Users can give feedback via email or a feedback form
   - If necessary, online help is available

6. Consistency
   - Only one word or term is used to describe any item
   - Links match titles of the pages to which they refer
   - Standard colors are used for links and visited links
   - Terminology is consistent with general web usage

7. Error prevention and correction
   - Errors do not occur unnecessarily
   - Error messages are in plain language
   - Error messages describe what action is necessary
   - Error messages provide a clear exit point
   - Error messages provide contact details for assistance

8. Visual Clarity
   - The layout is clear
There is sufficient ‘white space’

All images have ALT text assigned

Unnecessary animation is avoided

The results of the heuristic evaluations will be used to modify ICIS early in its development cycle.
References:

Appendix A

ICIS Personas
Name: Bruce Latour

“Our students are often invisible to each other.”

Uses/Contexts:
- Provide incoming students information to ease their transition
- Supply updated and accurate information to Dept/Grad Chair
- Facilitate communication between current students and faculty

Frustrations/Points of Pain:
- Students often only know other students within 1 year of their entry into the program
- Get asked the same questions repeatedly
- I’m from a different department and don’t know all the faculty courses & interests
- No means to pass on “corporate knowledge”

Relevant Scenarios:
- Receives inquiry from incoming student inquires about moving to Hawaii, finding a place to live, TA/GA/RA opportunities, etc.
- Dept/Grad Chair asks for information for bi-annual by-student progress review
- Semester ends, exams taken; need to update student info
- Faculty member awarded grant and is looking for possible RA

Goals:
- Save time when dealing with students and Dept/Grad Chair
- Access accurate and timely info on demand
- Reduce phone calls and meetings
- Increase success of CIS PhD students

Background:
- Role: CIS Department Secretary (part time)
- Gender: Male
- Age: 45
- Education: Education Psychology PhD student

Narrative: Bruno is the first-ever secretary for the CIS program. He immediately noticed that the department is less cohesive than his own; the multi-disciplinary nature of the program consists of varied faculty and student interests, many of which don't know of each other. In general, students primarily interact with those that entered around the same timeframe; many come to Bruno with all sorts of questions. Bruno really wants to help, but has limited resources.

In the course of a semester, Bruno receives countless questions from grad students about exams, committee member requirements, course codes; the answers to these questions are scattered about numerous websites. Some important questions are not documented, such as “which faculty member has a good/bad reputation as committee chair?” And, of course, there are the recurring progress reviews with the Dept Chair that need good data, which usually entails emails and calls to individual students, often to get information previously provided.
**Name:** Alexis Leontev

**Uses/Contexts:**
- Review individual and roll-up reports of student academic plan
- Provide incoming students information to ease their transition
- Facilitate communication between current students, faculty, alumni

**Goals:**
- Save time
- Maintain awareness of student academic plan and progress
- Assist connecting students and faculty with mutual interests
- Build greater sense of community in dept
- Increase success of CIS PhD students

**Background:**
- Role: CIS Department Chair
- Gender: Female
- Age: 51
- Education: PhD Computer Science

**Frustrations/Points of Pain:**
- Too many grad students don't focus on research opportunities until after exams done
- Recurring committee eligibility issues
- Part-time students not aware of current faculty research goals (dissertation ideas)
- No means to pass on “corporate knowledge”

**Relevant Scenarios:**
- Needs to prepare for department review of student progress
- Student asks to meet to discuss change in academic plan
- Budget cuts looming; need to provide program student metrics
- Faculty member awarded grant and is looking for possible RA
- Time to program next CIS-relevant FY courses
- Have to validate CIS faculty identified for exams and courses

**Narrative:** Alexis is a tenured professor in ICS that volunteered for the CIS Chair position. While she has many responsibilities, her primary concern is ensuring that CIS students are able to complete their degrees within time limits (a major issue in the past due to many students working full-time). She is an active researcher and has chaired numerous CIS committees and participated in many more, so she has seen the spectrum of student problems and successes. From Alexis' perspective, a key success factor for any student is early identification of research interests and faculty that share or can support those interests. Too many students focus all their efforts on passing exams and find themselves in year 3 or 4 with no clue as to potential dissertation topics or supporting methodologies. On the flip side, numerous faculty have complained that they have a hard time finding motivated students that could benefit from their current research opportunities.
Name: Mike Callon

“I found my advisor almost by accident.”

Goals:
- Pass exams
- Defend proposal
- Defend dissertation
- Get a job in academia

Background:
- Role: 2nd year CIS PhD Student
- Gender: Male
- Age: 40
- Education: BS Mech Eng & MSIS

Uses/Contexts:
- Gather information about exams
- Find other students to study with for exams
- Find faculty to ask questions about possible dissertation topics and methodologies

Frustrations/Points of Pain:
- Relevant information scattered over too many different websites – don’t know where to look
- Don’t know which students have taken which exams – hard to ask advice
- Unsure which faculty still active in CIS, their research interests, if they will advise

Relevant Scenarios:
- Searches for requirements to take HCI primary area exam
- Searches for resources to study for HCI primary exam
- Passively explores ongoing research opportunities
- Looks for eligible committee members
- Find RA/GA/TA opportunities
- Find proposal & dissertation defenses to observe
- Find graduation requirements

Narrative: Despite an early interest in academia, Mike postponed his PhD schooling while he worked first as a mechanical engineer at several power plants and later as an information systems analyst for Northrup Grumman Corp (NGC). While at NGC, Mike worked on numerous large projects for the U.S. Government and was often shocked at the different views held by the designers and end-users for the same system, hence his interest in HCI.

Self-motivated and organized, Mike thought he was prepared to handle the rigors of any PhD program, but quickly found that academia was not what he remembered from his undergrad days and nothing at all like working in industry. He had several epiphanies during his first year in the PhD program and almost quit several times. Mike met his advisor at a CIS happy hour towards the end of his first year, the only such event he ever attended. Serendipity aside, Mike wants to ensure that others can benefit from his lessons learned.
**Name:** Silvia Rubenshtein  
**Background:**  
- Role: Incoming CIS PhD student  
- Gender: Female  
- Age: 35  
- Education: BA & MA Communication  

**Goals:**  
- Acclimate to Hawaii quickly  
- Find a RA/GA job  
- Start CIS program strong  
- Develop an academic plan  
- Find interesting research to explore  
- Graduate in 4 years

**Uses/Contexts:**  
- Find information to ease transition to Hawaii (transportation, living, etc)  
- Search for courses  
- Search CIS program requirements  
- Find GA/TA/RA job  
- Identify useful academic resources

**Frustrations/Points of Pain:**  
- Through acceptance process, have only talked/emailed the Dept Chair and Secretary  
- Not sure which classes I should take in my first semester  
- Coordination from East Coast is difficult

**Relevant Scenarios:**  
- Looks for RA/GA opportunities  
- Searches for advice on moving to Hawaii  
- Starts to plan which courses to register for Fall semester, develop academic plan  
- Looks to better understand program requirements  
- Explores faculty research interests  
- Seeks relevant academic resources

**Narrative:** Silvia has lived in Boston, MA area her whole life, but has worked for Accenture Consulting for the past 10 years. While at Accenture, she specialized working with banks that were implementing customer relationship management systems. Lately, her focus has been on working with large Asian banks in Japan, China, and Korea. Several of her trips took her to Hawaii and she loves the people and weather. She has gone on leave without pay from Accenture with the hopes of returning to management. Although Silvia is a world traveler, she has never had to move out of state, and she has no close friends or associates in Hawaii. The multi-disciplinary nature of the CIS program is attractive to Silvia, but she wants to do her studies and dissertation in her familiar area. She's not a starving college student but is frugal by nature and doesn't want to use all her savings; she wants to live close to campus and avoid buying a car if at all possible. She will work full time until the week before she leaves for Hawaii.
Name: Johan Law

“I personally know very few CIS PhD students.”

**Background:**
- Role: Asst. Professor, ITM department
- Gender: Male
- Age: 43
- Education: PhD Communication Research

**Goals:**
- Earn tenure
- Mentor PhD candidates “the right way”
- Connect with faculty and students with mutual research interests

**Uses/Contexts:**
- Find PhD students to mentor and incorporate into current research
- Advertise RA opportunities
- Share useful academic resources

**Relevant Scenarios:**
- Received large NSF grant and needs to find motivated RAs
- Advertises courses to PhD students so he doesn't have to teach undgrad statistics (again)
- Find research interests of faculty for future grant proposals
- Finds and wants to contribute relevant academic resources (ITM, MIS, Comm) to the CIS community

**Frustrations/Points of Pain:**
- Always unavailable for CIS 720 seminars, never gets to meet CIS students
- Works out of Shidler Bus School; does not physically interact with other CIS faculty often
- Has many grant opportunities, few trusted PhD students to hire

**Narrative:** A brilliant career academic, Johan is well on his way to earning tenure at UH. He proudly graduated from MIT, Cal Berkely, and Stanford (all with 4.0's); he has high expectations for himself and his students. He enjoys researching all aspects of IT system integration into society and doesn't understand why anyone would do otherwise. Having had very positive experiences with his advisors, Johan enthusiastically seeks PhD students to mentor, saving them from mediocrity. However, he is frustrated by his lack of awareness of the “talent pool” of CIS PhD students and feels he should always have first rights for refusal of PhD students. Known for his grant writing skills, Johan has a number of impressive grants in the final stages of approval and funding, but he is facing a dilemma in finding worthy RA's. While Johan is an outstanding teacher, he abhors teaching undergrads (not serious enough) and would willingly fund a TA to cover his courses if he could get away with it.
Background:
- Role: Prospective ICS PhD student
- Gender: Male
- Age: 28
- Education: MS Computer Science

Goals:
- Find university in the USA that embraces foreign students
- Find university that matches academic goals

Name: Yasuhiro Yamazumi

"I need more than brochure information."

Uses/Contexts:
- Explore student visa requirements & foreign student support
- Explore courses offered and research areas of faculty
- Explore program requirements
- Contact ICS department

Frustrations/Points of Pain:
- There are many thousands of universities, and they all look the same on the web
- I must study somewhere that has good sushi
- I don't want to search for a dozen websites looking for answers to my questions about a single university program

Relevant Scenarios:
- Conducts a passive search of ICS department faculty (past & current research focus)
- Conducts a passive search of ICS students to assess the program’s ethnic diversity
- Searches for advice for foreign students moving to Hawaii
- Searches for program application requirements

Narrative: Yasu is a child prodigy video game programmer that is burned out from working almost non-stop on some of the top video games published by Sony in the past 15 years. For all his hard work, he has enough money to retire and live comfortably for the rest of his life, but is bored by that prospect. Yasu feels he has learned an enormous amount about the psychology of gamers and wonders if he can use his knowledge to make traditional IT systems more effective, efficient, and fun to use. He also likes the idea of earning his PhD and starting his own consulting company. However, after working relentlessly for so many years, he wants to study at a pace and place that will allow him to enjoy some of his hard-earned savings, and perhaps meet a wife. He is focusing his search mostly on the West Coast of the USA, and is somewhat romantically attracted to the idea of living in Hawaii for 4-5 years. But, he doesn't want to waste his time by choosing a school that does not fit his long term goals.
**Background:**
- Role: Soon to defend ICS PhD student
- Gender: Male
- Age: 33
- Ed: MS Computer Science

**Goals:**
- Find more funding
- Present papers at two conferences
- Finish dissertation
- Maintain relationship with wife and daughter
- Find a job in academia or post-doc

**Narrative:** Marvin has nearly completed the PhD program at UHM. His research involves distributed and parallel computing algorithms. He is currently writing his dissertation and has nearly completed all research associated with it. One of his chief collaborators is a researcher in Lyon, France and he must communicate with her regularly via Skype or chat. He's married to a woman he met while doing his Master’s at UT Austin and they have a two-year old daughter. Funds are very tight and Marvin is trying to finish his dissertation as soon as possible, but sometimes family life takes up much of his time. Additionally, he is very concerned about living a healthy lifestyle. He is a strict vegetarian and runs long distance for both physical and mental health. He very much wants to finish up his dissertation and find a new position where he can still do research but with better pay.

**Uses/Contexts:**
- Search for journal articles
- Interact/message collaborators and advisors
- Search for summer internships and job/post-doc leads
- Check bus schedules

**Relevant Scenarios:**
- Conducts library search of electronic format journals for dissertation literature review
- Searches through official literature and student postings for financial aid advice
- Conducts impromptu meeting with advisor over chat
- Looks through postings from faculty and alumni for job leads.

**Frustrations/Points of Pain:**
- Financial aid cut my funding due to a grad school technicality no one told me about.
- My advisor comes and goes at will and I can never track him down.
- I am worried that I don't have all my graduation requirements fulfilled, information is spread all over.

**Name:** Marvin Minsky

“Fin. aid made up a lame excuse for cutting my funding”
Appendix B

ICIS Scenarios
## 1.0: Preparing for the bi-annual CIS student progress review (before ICIS)

### Bruce Latour

**Background:**
- **Role:** CIS Department Secretary (part time)
- **Gender:** Male
- **Age:** 45
- **Education:** Education Psychology PhD student

### Goals:
- Save time when dealing with students and Dept/Grad Chair
- Access accurate and timely info on demand
- Reduce phone calls and meetings
- Increase success of CIS PhD students

### Activity Scenario

Bruce arrives at his office to find a note and email from Dr. Leontev that the bi-annual CIS student progress review with the executive committee has been moved up to next week due to travel conflicts with several members.

The first order of business is to find the current roster of active CIS students. Bruce searches through his email archives and finds the completed file from the last review to use as a starting point.

Many updates are required. Not only are there new students with essentially no information on file, but several students have taken exams (most passed, but a couple failed, which requires additional tracking), some have defended proposals, and three have successfully defended their dissertations, but may not have finished final edits and submitted paperwork for graduation. A running CIS-related course completion list is also required, as well as future plans for exams and courses. Several students have emailed updates throughout the semester, and Bruce hopes he filed those emails so he can find them. Most have not provided any update.

Bruce reviews the minutes from the last meeting and notes that the main concerns from the last review were advisor selection and makeup of committees. In the past, the Dept Chair kept this information up to date, but Bruce and Dr. Leontev agree that it should be kept together with the other progress data. Dr. Leontev can not find her notes from the last review, so Bruce will have to start from scratch.

Bruce sends out an email to the CIS-STU mailing list requesting all send back the required information within 48 hours, but knows that will not happen for over 50% of the students that never check their UH email. He will have to call the students, which means finding their phone numbers (located on paper files in Dr. Leontev's office). He hopes they are correct.

As the information trickles in, Bruce has to keep track of which students have replied to know who to call back. Bruce updates the information in a Word document that is organized alphabetically. He's always wanted to create a database or spreadsheet to organize the data but hasn't had the time. Dr. Leontev doesn't like the current format much, but is happy just to get updated information.

### Tasks

1) Build roster of current students
2) Identify required updates to individual files
3) Review previous minutes for new information requirements
4) Send email requesting updates
5) Retrieve phone numbers for students from paper file
6) Receive student inputs.
7) Track updates still required
8) Manually update Word document
9) Send updated file to Dr. Leontev
**Activity Scenario**

Bruce arrives at his office to find a note and email from Dr. Leontev that the bi-annual CIS student progress review with the executive committee has been moved up to next week due to travel conflicts with several members.

The first order of business is to find the current roster of active CIS students. Bruce logs into ICIS, generates a report of current students, and performs a visual check to make sure all student names are present.

Only a few updates should be required. Since the back-end database that provides data to ICIS has been implemented, Bruce has been able to add/update/delete relevant student information as it comes in via email or phone call. When ICIS was implemented, the CIS department chair implemented a policy that all students must provide status updates, 1 month into each semester, to Bruce in a standard template that includes relevant information for the database that includes exams taken/scheduled, proposal & dissertation defense plans, courses being taken, updates to committee members, etc. Bruce essentially just needs to update the database with information he received in the past week. Editing individual records requires selecting the hyperlink of a student's name and making necessary changes. Only Bruce and Dr. Leontev have permissions to update the database.

Bruce reviews the minutes from the last meeting and notes the reports that the CIS committee will review; the committee will run their review off of a computer connected to a projector, but want the reports easily accessible. The reports include a breakout of students in the academic, proposal, and dissertation phases. Individual student progress will be accessed through these reports using hyperlinks. Bruce does a test run of each report to verify accuracy. Additionally, Bruce reviews each student record to verify timelines are being met, or not, for their specific phase, in accordance with appropriate CIS and US grad policies. Any issues are added as a comment that are highlighted and clearly visible when viewing the student record in ICIS. ICIS does not yet have the logic built into it to automatically compare current status vs. timelines.

Bruce uses ICIS to send an email to the current CIS students requesting they verify their current record on ICIS within 48 hours. Bruce also sends an email to Dr. Leontev stating the system is updated and ready for the review.

<table>
<thead>
<tr>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Log into ICIS</td>
</tr>
<tr>
<td>2) Run current student report</td>
</tr>
<tr>
<td>3) Visually verify current report</td>
</tr>
<tr>
<td>4) Update student data</td>
</tr>
<tr>
<td>5) Review previous minutes</td>
</tr>
<tr>
<td>6) Run reports used by exec committee</td>
</tr>
<tr>
<td>7) Review student progress timelines and add comments for any issues</td>
</tr>
<tr>
<td>8) Send group email via ICIS to CIS students</td>
</tr>
<tr>
<td>9) Email Dr. Leontev that ICIS is ready for the review</td>
</tr>
</tbody>
</table>
Alexis Leontev

Background:
- Gender: Female
- Age: 51
- Role: CIS Department Chair
- Education: PhD Computer Science

Goals:
- Save time
- Maintain awareness of student academic plan and progress
- Assist connecting students and faculty with mutual interests
- Build greater sense of community in dept
- Increase success of CIS PhD students

Activity Scenario

Alexis has received email notifications from several of the CIS executive committee that they will be unavailable for the planned CIS student progress review. This is frustrating, as the meeting was pre-coordinated months ahead of time, but change is more the norm than the exception. She emails the executive committee members as a group and starts the painful process of finding a meeting time that all can attend. This takes many emails and calls and it is hard to keep track, but she eventually gets an agreement to meet next week. Unfortunately, she is not prepared and will have to task the department secretary, Bruce, to gather the required information quickly.

Alexis notices that Bruce has sent an email to the CIS-STU listserv address and follows up with a note stating the importance of a timely and accurate response from all students, even if they think they have already provided the information.

As Bruce receives information, Alexis asks for updates, specifically for those students that she knows are getting close to timelines for exams, proposal, and dissertation defenses. Even though she has done this drill 100 times, she verifies the current timelines in the CIS program policy.

As Alexis reviews committee inputs for several select students, she has to check the UH Grad Department website to verify that the members are eligible. Then she searches to find the latest updated requirements from the university for committee members, which is not directly linked from the committee eligibility search page. There are other rules for CIS committee members, so Alexis reviews the CIS policy in that area again.

Finally, Bruce has the mostly updated information available. Several students have not responded to emails or calls, so Alexis has to personally call and email, an annoyance that requires her to look up phone numbers and email addresses (forgot to ask Bruce). The format of the information is clunky (alphabetical), so she highlights and makes notes on her copy for students in various phases of their studies as well as problem areas.

The executive board meets. Alexis then has to contact each student with a status of their review and any issues or concerns.

<table>
<thead>
<tr>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Coordinate CIS executive committee meeting via email and phone</td>
</tr>
<tr>
<td>2) Reply to CIS-STU info inquiry email</td>
</tr>
<tr>
<td>3) Review current CIS program timeline policy</td>
</tr>
<tr>
<td>4) Verify committee member eligibility via UH Grad Dept web site</td>
</tr>
<tr>
<td>5) Review latest UH committee reqts</td>
</tr>
<tr>
<td>6) Review CIS committee policy</td>
</tr>
<tr>
<td>7) Email and call students that did not respond to Bruce</td>
</tr>
<tr>
<td>8) Manually highlight Word document categorically</td>
</tr>
<tr>
<td>9) Contact each student with results of review</td>
</tr>
</tbody>
</table>
Activity Scenario Data Sheet

2.1: Preparing for the bi-annual CIS student progress review (with ICIS)

Alexis Leontev

Activity Scenario

Alexis has received email notifications from several of the CIS executive committee that they will be unavailable for the planned CIS student progress review. This is frustrating, as the meeting was pre-coordinated months ahead of time, but change is more the norm than the exception. She logs onto ICIS and uses the meeting coordinator tool to schedule a new meeting date. She uses ICIS to send an email to the exec committee members with a link to the new meeting coordination post. She checks the status of the meeting, sees that Dr. Who has not yet provided his availability and calls to remind him to check his email. After all of the exec committee has entered their availability, she chooses a best time and date and emails Bruce to let him know of the schedule change.

Alexis receives an email from Bruce that ICIS is ready for her review. She logs into ICIS, runs the desired reports of student categories (academic, proposal, dissertation) and quickly reviews a few students that she has questions about. She then uses ICIS to send an email to the exec committee that the system is ready for their review prior to the meeting. She will find time at home over the next week to review in detail each student prior to the meeting.

As Alexis reviews committee inputs for several select students, she has to verify that the committee members are eligible. ICIS provides a list of links to the UH Grad & CIS Department websites to verify that the members are eligible as well as the latest updated requirements from the university & CIS program for committee members. However, these links are only co-located on the same screen with committee members when running a “committee” report in ICIS. Alexis would love for ICIS to automatically highlight a committee member's eligibility in the future.

The executive board meets. In real time, Alexis updates each student's record with comments from the board. ICIS sends an email to the student automatically with the comment. Finally, Alexis flags the records of all students that require further action; these students can be quickly identified by running a report in ICIS.

Tasks

1) Coordinate CIS executive committee meeting via ICIS and follow up email as required
2) Log into ICIS
3) Runs ICIS reports for student review categories
4) Reviews individual student ICIS records
5) Send exec comm email via ICIS
6) Review CIS committee policy via links on ICIS
7) Update student ICIS records with EC comments
8) Flag student ICIS records
9) ICIS emails student

Background:
- Gender: Female
- Age: 51
- Role: CIS Department Chair
- Education: PhD Computer Science

Goals:
- Save time
- Maintain awareness of student academic plan and progress
- Assist connecting students and faculty with mutual interests
- Build greater sense of community in dept
- Increase success of CIS PhD students
### Activity Scenario

**Marvin Minsky**

Marvin is nearly done with his PhD dissertation. He and his advisor need to determine when to schedule the 3 hours necessary for his defense with his committee members and the ICS department. He also needs to make sure that all paperwork is in order on the day of his defense. His job is made more difficult because one of his committee will be in France at the time and must participate via some type of video conferencing system. Additionally, he must work around all of the other committee members' teaching schedules.

He has set up a meeting with his advisor tomorrow. He wants to be prepared to give her the information needed for them to decide on a defense date. He logs into the ICIS system and brings up his own progress report. He double checks that all of his paperwork is in order so far and determines that he needs to file a certification of requirement fulfillment form signed by his committee two weeks before his defense. Marvin opens the form in ICIS, partially fills it out and saves it to his workspace to show to his advisor at their meeting.

He then uses ICIS to check each of his committee members' schedules on their profile pages. He also checks the shared departmental calendar to see which dates are not taken by other defenses or seminars. Comparing these schedules with his own, Marvin determines that Tues. March 30th, Wed March 31st, or Thursday April 1st are his best bets.

Marvin then uses ICIS to investigate the availability of video conferencing equipment. He determines that the ICS department does have a license to use Adobe Acrobat Connect from its IT systems information page and sends an instant message to the IT desk asking about equipment availability for video conferences. He gets a message back telling him no equipment is currently available because it is broken. Marvin returns to ICIS and searches the Wiki pages. He finds that other students have used the campus-wide computing systems services to get what he needs. Searching through ICIS he finds the correct contact information and sends them an email tentatively requesting the equipment for those three days (just in case.)

The next day he will meet with his advisor with all the necessary information all ready to present to her. Advisor is happy and Marvin is reassured that he has all his bases covered.

### Tasks

1) Check own ICIS progress report
2) Find and fill grad division form
3) Save form to a workspace
4) Check faculty schedules
5) Check department schedule/calendar
6) Compare calendars
7) Find software license available through the dept.
8) IM dept. IT office
9) Look for helpful tips from others in same situation
10) Contact university IT office via email and make reservation for equipment
Dr. Law is frustrated because he has some new grant money coming in and needs to hire two new RAs but as a new professor he doesn't know many of the PhD students in his department. He has an undergraduate class that conflicts with the CIS 720 seminar, so he has little chance to meet the graduate students.

He logs into ICIS and edits his own profile to reflect this exciting new direction his research is taking, discussing the need for research assistants and what the assistants' work will involve. Additionally, he lists some ideas for related projects that could be pursued by student collaborators.

To advertise the available positions he uses the forum features of ICIS to make a help wanted listing, linking the listing to his new profile pages. He also searches through the grad students' profiles noting several outstanding students who share his research interests. He decides to send messages directly to those students regarding his research grant referring them back to his ICIS profile for more information.

Still searching through ICIS, he finds the shared calendar with the after-seminar meetings at Manoa Gardens listed. He can make this because his class is over at 5:20!

A couple of the students he messaged through ICIS reply to him and they schedule meetings using the calendar feature of ICIS. One of these is especially promising.

The next Thursday, Dr. Law comes to Manoa Gardens for happy hour. He meets several of the CIS graduate students and some of the faculty who work out of other departments. One student approaches him indicating that she is a new transfer student, had seen his RA advertisement on the ICIS forum and would like to apply for the position.

Now Dr. Law is able to choose from a variety of students who he would like to work with him on his new project.
Yasuhiro Yamazumi

Background:
• Role: Prospective ICS PhD student
• Gender: Male
• Age: 28
• Education: MS Computer Science

Goals:
• Explore student visa requirements & foreign student support
• Explore courses offered and research areas of faculty
• Explore program requirements
• Contact ICS department

Yasuhiro is looking for a university to pursue his PhD and he has done a lot of work in video games programming. He is looking for advisor to work with him in this field to get his PhD. He wants to study abroad, so he needs to know about the student visa requirements and to know more about the programs.

Yasuhiro was surfing the internet to find a university to fit all his expectations and goals. He visited ICIS website and he was happy with the answers and information that ICIS provided to him in aspect of student visa requirements, orientation about the program, doctors/professors interests field, easy way to get in contact with the department, information about the courses and previous students experience.

He finds all what he was looking for and more under one website plays a major role in make his decision to pick university of Hawaii his target to achieve his PhD.

5: Finding a suitable program

Tasks
1) Retrieve data related to student visa requirements.
2) Access orientation material about the program.
3) Search through student profiles (public information)
4) Send emails
# Junho Park

**Background:**
- **Role:** Exam/class oriented grad student
- **Gender:** Male
- **Age:** 32
- **Education:** MA Communication Studies

**Goals:**
- Gather information about Exams and Courses
- Find out which faculties teaching what courses
- Find available faculties to discuss to narrow his dissertation topics
- Build and maintain connection with current students

## 6: Gathering information about exams / classes

Park is the first year student still struggling with adopting to new environments and academic systems. He's received his MA degree in Korea and moved to Hawaii for this Ph.D. In CIS program. This is his second semester and he has decided to take the first exam which is required by the program.

His primary goal to use ICIS to gather information about exam committee members, their reading lists and study guides to prepare the exam. First, he logs in ICIS and checks wikis of other students who are taking same exam. After Park reads others' comment on his questions about readings from last week, and leaves comments to others' questions, he checks other committee member's page to see a reading list to find next readings. He considers this is very important for him to prepare the exam which is not a familiar area to him.

Because of his limited academic background, he's been struggling in a disciplinary program which he has to choose certain focus areas which he's not really familiar. To gather information, he checks current students' info pages to find out who are in a same focus area. After he finds couple students, he emails to them to ask about courses he wants to take.

Still he needs to check couple more information. He knows he has to start thinking about picking couple possible dissertation topics and available faculties as committee members. He checks faculty pages and see which faculties he needs to talk and get along with to narrow down his rough idea about a dissertation topic.

<table>
<thead>
<tr>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Post questions and answers</td>
</tr>
<tr>
<td>2) Explore resources on exam and courses</td>
</tr>
<tr>
<td>3) Edit own information</td>
</tr>
<tr>
<td>4) Look up people (current students, faculties)</td>
</tr>
</tbody>
</table>
# Activity Scenario Data Sheet

## 7: Moving and finding GA / RA opportunity

### Silvia Rubenshtein

<table>
<thead>
<tr>
<th>Activity Scenario</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>As soon as Rubenstein logs in ICIS, she checks if there's an available GA opportunity that she can apply. She also emails to department secretary and chair to ask them to let her know if there's an available GA or RA.</td>
<td>1) Search resources (transportation, living, academic etc)</td>
</tr>
<tr>
<td>Rubenstein, then, looks up resources for moving herself from Boson to Hawaii. First she opens Island mover's website to figure out estimate moving cost and leaves her contact information to expect them to contact and send an agent to measure moving cost.</td>
<td>2) Check available GA announcement</td>
</tr>
<tr>
<td>After that she follows another two links. Honolulu Advertiser and Craigslist to find a place to live and 'The Bus' website to find routes from places she has found to a campus.</td>
<td>3) Contact current students for information</td>
</tr>
<tr>
<td>Then she opens course description pages to plan which courses she needs to register for Fall semester. She looks up current students' info which shows what courses the students have taken and example semester schedules provided by CIS department. She emails to current students and faculties to gather information about the courses.</td>
<td></td>
</tr>
<tr>
<td>She seeks relevant academic resources and reading lists to help her to build background knowledge in focus areas that she's not familiar with before she starts her first semester. She can easily find the reading list information from faculties pages from each area and relevant academic resources such as academic research engines.</td>
<td></td>
</tr>
</tbody>
</table>

### Background:
- Role: Incoming CIS PhD student
- Gender: Female
- Age: 35
- Education: BA & MA
- Communication

### Goals:
- Acclimate to Hawaii quickly
- Find a RA/GA job
- Start CIS program strong
- Develop an academic plan
- Find interesting research to explore
- Graduate in 4 years
## Goals:
- Advance in academic career
- Exchange info on research opportunities and events
- Keep up with the CIS community

## Background:
- **Role:** CIS Alumni, graduated 6 years ago
- **Gender:** Female
- **Age:** 36
- **Education:** PhD

## Activity Scenario Data Sheet

### 8: Call for papers and find speakers for a conference

**Dana Boyd**

The Community Informatics Initiative is going to organize a conference on local communities and the initiative to bridge the digital divide. Dana is in charge to select the invited speakers both among affirmed scholars and young researchers. Moreover, like anyone else in her research center, she should advertise the conference for papers submissions and registrations.

She feels overwhelmed by the task of selecting the invited speakers, particularly for the young scholars who she doesn't know where to look for. Also for the affirmed scholars, she doesn't want to invite just the usual big names and she would like to find some very original work.

She remembered she registered to ICIS a few months earlier and thinks she could start to search among the interests and current work of fellow CIS alumni and the CIS faculty and also students. She decides to start looking up the profiles of people she shared some interests with and check their current work.

She cannot find any eligible person among the people she reminds and starts browsing the profile of people she wasn't in touch with while she was a CIS student. She browses very quickly as she cannot spend all her time looking for people just in one university. She found a recent alumnus who has done some very interesting work in the field, he is online while she browses his profile and she contacts him. He entered the program right after she graduated so they didn't meet before. They exchanged contacts, also email contacts of people they worked with in other research institutes.

She posts the call for paper and early registration in the system and move on in her research.

<table>
<thead>
<tr>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Log in</td>
</tr>
<tr>
<td>2. Search person by name</td>
</tr>
<tr>
<td>3. Search person by interests key words</td>
</tr>
<tr>
<td>4. Scan people's profiles, interests and current work</td>
</tr>
<tr>
<td>5. See that the owner of an interesting alumnus profile is online</td>
</tr>
<tr>
<td>6. Contact alumnus using his skype name in is profile</td>
</tr>
<tr>
<td>7. Exchange information with alumnus on skype</td>
</tr>
<tr>
<td>8. Post call for paper</td>
</tr>
</tbody>
</table>
Appendix C

ICIS Screen Mockups
ICIS is an interactive information portal that supports a diverse stakeholder audience with three main functionalities: Academic Profile Management, Resource Collation, and Contextual Collaboration.

Summary:
- Mon 4/26: 10:30 – 1:00 PM
  - Group Meeting: Discuss the interface.
- Wed 4/28: 10:30 – 1:00 PM
  - Group Meeting: Discuss the interface.
- Wed 4/28: 1:30 – 2:00 PM
  - Group Meeting: Discuss the interface.

Description:
Thursday, April 1, 2010, 1:30pm, POST 302
Mobile Ad-hoc Networks
Sanjay Kumar Madria
Associate Professor, Department of Computer Science
University of Missouri-Rolla
1:30pm-2:30pm
Thursday, April 1, 2010
Profile

Name: Marvin Minsky
Status: ICS PhD student (5th year)
E-mail: marvin@hawaii.edu

- Profile

Description:

- Mon 4/26: 10:30 – 1:00 PM
  - Group Meeting: Discuss the interface.

- Wed 4/28: 10:30 – 1:00 PM
  - Group Meeting: Discuss the interface.

- Wed 4/28: 1:30 – 2:00 PM
  - Group Meeting: Discuss the interface.
Welcome Marvin Minsky

- Profile

Name: Marvin Minsky
Status: ICS PhD student (5th Year)
E-mail: marvin@hawaii.edu

Profile

Name: Alexis Leontev
Status: CIS Department Chair
E-mail: alexis@hawaii.edu

Quick Search

Search

leontev

People
Alexis Leontev

Resources

News

Wiki

(Interative Collaboration Information System)

People

Resources

News

Wiki

All
General
Academic
- Association for Computer Machinery
- IEEE
- PsycNet
- Communication & Mass Communication
- Financial Aid (STAR): [www.star.hawaii.edu](http://www.star.hawaii.edu)
Departmental
- Committee Requirements
- Graduation Requirements
  - Focus areas
  - Yearly Requirements
  - Dissertation
  - Plan B Project
- Course Offerings
- Area Exam Preparations
Daily
- The Bus
- Self Storage
- U-Haul
- Island Movers

Related Wiki:
* Scholarships that CIS PhD students should always apply for (Sal Aurigemma, May 4, 2010)
Final Spring 2010 faculty lecture at Hamilton Library.
Varroa mite management workshop to be held May 14.
Seminar: Sanjay Kumar Madria, "Mobile Ad-hoc Networks".
Name: Marvin Minsky
Status: ICS PhD student (5th Year)
E-mail: marvin@hawaii.edu

- Profile

Quick Search

Search

Students
- Exams
- ABD
- Masters
- PhDs

Faculty
- Executive Committee
- Staff

Alumni

Exams:
- Sal
- Don
- Cat
- Ya-Wen
Welcome Alexis Leontev

Quick Search

Reports

Search

Delete

Add

Edit

Name: Alexis Leontev
Status: CIS Department Chair
E-mail: alexis@hawaii.edu

- Profile
- Reports

New Query:

Fields in Database
- Student name, Student ID,
- Committee Chair, Committee membership, etc

- ABD
- Graduated
- Committee
- Focus area

ABD:
- Rajib Ale-Subba
- Pat Gilbert
- Clair Hitsumi
- Roger Kederer
- Steven Mackson

Logout
Name: Marvin Minsky
Address: 408 Dole St. Apt 3U
Honolulu, HI 96822
Phone: 808-867-5309
Email: mminsky@hawaii.edu
Website: www.marvminsky.com
Facebook: www.facebook.com/mminsky
Skype: marvster69

Publications
• Distributed Exaptation (SIGCHI 10) – 2nd author
• Actor Network Theorists are Big, Fat Liars – (book chapter, 2009)

Committee
Important Deadlines
Completed Paperwork